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CENTRAL FAX CENTER

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IN THE CLAIMS

1-36 (canceled)

37. (currently amended) A compact material comprising:

70 to 97 vol % component A comprising alpha- and beta-SiAlON and a and an  
~~amorphous or~~ partially crystalline grain-boundary phase; and

5 to 20 3 to 20 vol.% of component B comprising a hard material is in globular form and  
an average grain size of 1-5 microns has an average grain size;

wherein ~~when the compact is sintered to form a sintered compact having~~ and has a  
sintered surface, ~~the sintered compact has~~ surface and a hardness of at least 1550 HV 10 and  
wherein said compact has an alpha-SiAlON gradient which decreases from ~~outside the compact~~  
the sintered surface to an inside of the sintered compact;

wherein ~~the alpha-SiAlON content of the sintered surface ranges~~ has an alpha-SiAlON  
content of up to 100%,

wherein said hard material is SiC, ~~at least one of SiC, Ti(C,N), TiC, TiN, a carbide of an~~  
~~element from one of groups IVb, Vb and VIb of the periodic table, scandium carbide, scandium~~  
~~oxy-carbide or a nitride of an element from one of groups IVa, Vb and VIb of the periodic table,~~  
wherein the state of the hard material remains unchanged after sintering;

wherein the content of grain-boundary phase is less than 10 vol.% and comprises phases  
of aluminum containing melilite or disilicate;

wherein in the ~~sintered state~~ inside of the said sintered compact comprises from 1.5 to 50  
vol.% the amount of alpha-SiAlON present ranges from 10 to 90 vol.%; and

wherein the amount of beta-SiAlON ranges from 10 to 90 vol.%.

38. (currently amended) The material according to claim 37, wherein grain-boundary phase is less than 5 vol.% ~~and the grain boundary phase is partially crystalline.~~
39. (currently amended) The material according to claim 37, wherein the grain-boundary phase is ~~crystalline and~~ contains aluminum-containing melilite ~~or diilite.~~
40. (currently amended) The material according to claim 37, wherein a maximum grain size of the alpha- and beta-SiAlON is ~~less than 90~~ 5  $\mu\text{m}$ .
41. (previously presented) The material according to claim 37, wherein the average grain size of the hard material is less than 30  $\mu\text{m}$ .
42. (cancelled)
43. (previously presented) The material according to claim 37, coated with a wear-reducing coating.
44. (previously presented) A process for producing the material of claim 37, comprising powder mixing, shaping, sintering and grinding.
45. (currently amended) A process according to claim 44, wherein component A is formed during a heat treatment at ~~temperatures~~ a temperature of from 1800 to 2000°C and ~~retention a retention time~~ times at the maximum temperature of 0.5 to 5 hours.
46. (currently amended) A process according to claim 44, wherein ~~gas atmosphere~~ during sintering is conducted in an inert atmosphere.
47. (previously presented) The material produced by the process of claim 44.
48. (previously presented) The material according to claim 43, wherein said wear-reducing coating comprises at least one of  $\text{Al}_2\text{O}_3$ , TiN or TiC.

49. (currently amended) A process according to claim 46, wherein the sintering is conducted in a gas atmosphere that comprises ~~comprises~~ N<sub>2</sub> or a mixture of N<sub>2</sub> and another inert gas.

50. (currently amended) A process according to claim 46, wherein the ~~atmosphere~~ inert gas comprises argon.